Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of reducing [a] metal oxide corrosion on an alloy surface of a superalloy component of a gas turbine engine [an article], comprising the steps of:

(1) placing the superalloy component [article] within a vacuum chamber,

(2) applying a vacuum within the environment of the chamber,

(3) generating a meta-stable H_3^+ reductive plasma from a plasma-forming gas comprising hydrogen within the vacuum environment of the chamber, and

(4) exposing the alloy surface to the meta-stable H_3^+ reductive plasma for a time sufficient to reduce the metal oxide.

2. (cancelled)

3. (previously amended) The method according to Claim 1 wherein the alloy surface further comprises at least one crevice having a surface comprising the metal oxide.

Claims 4 and 5 (cancelled)

6. (currently amended) The method according to Claim 1 wherein the vacuum within the environment of the chamber is at least 10 torr, and up to about 20 torr [or less].

7. (currently amended) The method according to Claim 6 wherein the step (2) further includes the step of purging the environment of the chamber with the plasma forming [a reducing] gas prior to or during the applying of a vacuum.

8. (original) The method according to Claim 6 wherein the vacuum is about 10 to about 15 torr.

9. (previously amended) The method according to Claim 1 [5] wherein the step (4) comprises directing the meta-stable plasma toward the metal oxide.

10. (original) The method according to Claim 9 wherein the directing step comprises using a plasma torch, and positioning a discharged stream of the meta-stable plasma from the plasma torch toward the metal oxide.

11. (cancelled)

12. (currently amended) The method according to Claim 1 wherein [a reductive plasma comprising a meta-stable H_3^+ plasma is generated from a] the plasma-forming gas is [comprising] about 8% or less hydrogen gas, and a remainder of an inert gas.

13. (original) The method according to Claim 9 wherein the directing step comprises applying a reverse-bias voltage potential between the plasma generator and the alloy surface.

14. (original) The method according to Claim 12 wherein the directing step comprises passing the meta-stable plasma through a magnetically-generated channel.

15. (currently amended) A method of [removing] reducing [a] metal oxide corrosion [from] on an alloy surface of a superalloy component of a gas turbine engine [an article], comprising the steps of:

(1) placing the superalloy component [article] within a vacuum chamber,

(2) applying a vacuum of about 20 torr or less within the environment of the chamber,

(3) using a plasma torch to generate a concentration of active H_3^+ ion within the vacuum environment of the chamber, the plasma torch comprising a discharge nozzle, an electrode electrically isolated from [in non-contacting relation with] the discharge nozzle, a source of a plasma-forming gas for passing [through] between the discharge nozzle and the electrode, the plasma-forming gas comprising hydrogen and an inert gas, and a power supply device for the formation of a non-transferred arc between the discharge nozzle and the electrode, and

(4) positioning the discharge nozzle toward the superalloy component [article], to direct the concentration of active H_3^+ ion toward the metal oxide on the alloy surface for a time sufficient to reduce the metal oxide.

16. (original) The method according to Claim 15 further comprising the step of applying a reverse-bias voltage potential between the plasma torch and the alloy surface.

Claims 17-21 (cancelled)

22. (currently amended) The method according to Claim [21] 16 wherein the vacuum is at least 1 torr.

23. (currently amended) The method according to Claim [1] 22 wherein the vacuum within the environment of the chamber is less than 15 torr.

Claims 24-26 (cancelled)

27. (new) The method according to Claim 15 wherein the vacuum is at least 10 torr.

28. (new) The method according to Claim 23 wherein the vacuum is at least 10 torr.